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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/820,295

04/08/2004

Brian Connell

22493-27U(16666ROUS01U)

7444

31292 7590 07/21/2009  
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EXAMINER

MITCHELL, JASON D

ART UNIT

PAPER NUMBER

2193

MAIL DATE

DELIVERY MODE

07/21/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/820,295	<b>Applicant(s)</b> CONNELL ET AL.	
	<b>Examiner</b> JASON MITCHELL	<b>Art Unit</b> 2193	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is in response to an amendment filed on 2/24/09.

Claims 1-29 are pending in this application.

#### ***Response to Amendment***

The examiner notes that in the claim set submitted on 2/24/09 claim 21 is indicated as dependent on claim 19 but the claim has not been marked as changed.

The examiner is unaware of any other unmarked changes to the claims.

#### ***Response to Arguments***

**Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.**

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claim 21** recites the limitation "the generated system documentation" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. For the purposes

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of this examination the claim will be treated as dependent on claim 20 which provides the required antecedent basis.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 8-10, 12-16, 18-22, 24, 26-27 and 29 are rejected under 35**

**U.S.C. 102(b) as being anticipated by US 2002/0091809 to Menzies et al. (Menzies).**

**Regarding Claims 1, 13 and 19:** Menzies discloses a method comprising:

modeling network element commands (par. [0089] “a SNMP GetNext function”), events (par. [0074] “events are modeled as TRAP-TYPE and NOTIFICATION-TYPE macros”) and run-time system data (par. [0066] “MIB contains two types of structures for describing dynamic device data”) into a data model using a first modeling language, the data model comprising first data (par. [0064] “each network device provides information according to the SNMP standard ... i.e. via MIBs”);

translating the first data represented in the first modeling language to second data represented in a second modeling language (par. [0064] “maps MIB information to CIM classes”);

storing the second data in the second modeling language in a global data model repository ([0039] “The Common Information Model (CIM) defines the model used to represent the real-world objects being managed”); and

automatically generating code to support an external management interface based on the stored second data in the global repository, the external management interface communicating with the stored second data (par. [0060] “transparently translate the user’s high-level query into a series of simple retrievals and then perform the query internally on behalf of the user”).

In the case of claim 13, Menzies further discloses

a memory comprising a global repository (Fig. 3, CIM Repository 74; Fig. 1 RAM 25);

a processor electrically coupled to the memory (Fig. 1, Processing Unit 21);

a first interface to a plurality of network elements in communication with the global repository (Fig. 3, COM, SNMP, RPC, HMMP and WIN32 communication with Objects 76<sub>1-n</sub>); and

a second interface to an external interface in communication with the global repository (Fig. 3, DCOM or HMMP communication with Management Applications 58<sub>1-n</sub>).

**Regarding Claims 2, 14 and 20:** The rejections of claims 1, 13 and 19 are incorporated; further Menzies discloses automatically generating system documentation

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based on the stored second data (see e.g. the table following par. [0048] “[description (“This class models a disk”)]”).

**Regarding Claims 3, 15 and 21:** The rejections of claims 2, 14 and 20 are incorporated; further wherein the generated system documentation corresponds to code generated to support an external management interface (par. [0048] “[description (“This class models a disk”)]”).

**Regarding Claims 4, 16 and 22:** The rejections of claims 1, 13 and 19 are incorporated; further Menzies discloses the first modeling language is structured management information (SMI) (par. [0070] the SMI compiler 88 for processing the MIB tree structure”).

**Regarding Claims 8:** The rejection of claim 1 is incorporated; further Menzies discloses automatically generating code for the external interface includes automatically generating code to implement a Simple Network Management Protocol interface (par. [0063] “Common Information SNMP Mapping”).

**Regarding Claims 9 and 26:** The rejections of claims 1 and 19 are incorporated; further Menzies discloses automatically generating code for the external interface includes automatically generating code to implement a configuration database (par. [0038] “the CIM database 74”).

**Regarding Claims 10 and 27:** The rejections of claims 1 and 19 are incorporated; further Menzies discloses automatically generating code for the external interface includes automatically generating code to implement Simple Network Management Protocol SNMP subagents (par. [0004] “agents provide such management information via a standard known as the Simple Network Management Protocol (SNMP)”); par. [0063] “Common Information SNMP Mapping”).

**Regarding Claims 12, 18, 24 and 29:** The rejections of claims 1, 13 and 19 are incorporated; further Menzies discloses modeling the run-time system data from a plurality of sources using at least one of the first modeling language and the second modeling language (par. [0035] “access a CIM repository 74 in order to determine which object provider or providers to contact”).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 5-7, 11, 17, 23, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0091809 to Menzies et al. (Menzies) in view of US 2003/0046370 to Courtney (Courtney).**

**Regarding Claims 5, 17 and 23:** The rejections of claims 1, 13 and 19 are incorporated; further Menzies does not disclose the second modeling language is extensible markup language (XML).

Courtney teaches a method of abstracting network elements wherein the second modeling language is XML (par. [0036] “convert the active command format for the network device 165 into an XML ... format”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to model Menzies’ second data ([0039] “The Common Information Model (CIM) defines the model used to represent the real-world objects being managed”) in XML as taught by Courtney (par. [0036] “convert the active command format for the network device 165 into an XML ... format”). Those of ordinary skill in the art would have been motivated to do so as a known alternate method for storing the data which would have provided only the expected functionality (Menzies par. [0060] “transparently translate the user’s high-level query into a series of simple retrievals and then perform the query internally on behalf of the user”; par. [0038] “the system administrator 175 is presented with network device configurations in a standard, consistent format”).



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**Regarding Claims 6, 7 and 25:** The rejections of claims 1 and 19 are incorporated; further Menzies does not explicitly disclose automatically generating code to implement a command line interface (CLI) or an XML interface.

Courtney teaches automatically generating code to implement a command line interface (CLI) (par. [0040] “the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices”) and an XML interface (par. [0039] “the standard XML-to-native XML converter”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Menzies’ methods (par. [0064] “maps ... information to CIM classes”) to generate code to implement a CLI or XML interface as taught by Courtney (par. [0040] “the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices”; par. [0039] “the standard XML-to-native XML converter”). Those of ordinary skill in the art would have been motivated to do so in order to expand the applicability of Menzies’ methods (see e.g. Menzies par. [0036] “gather the necessary data from the devices ... using vendor or protocol-specific mechanism ... or a proprietary mechanism”).

**Regarding Claims 11 and 28:** The rejections of claims 1 and 19 are incorporated; further Menzies discloses generating a class repository (par. [0059] “CIM classes ...

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stored in the CIM repository”) but does not explicitly disclose automatically generating code to assist in implementation of an Application Program Interface.

Courtney teaches automatically generating code to assist in implementation of an Application Program Interface (par. [0043] “The DOM applications can also include an (API)”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Menzies’ class repository (par. [0059] “CIM classes ... stored in the CIM repository”) as an API as taught by Courtney (par. [0043] “The DOM applications can also include an (API)”).

Those of ordinary skill in the art would have been motivated to do so as a known alternative method of providing the disclosed functionality with would have produced only the expected results (Menzies par. [0060] “transparently translate the user's high-level query into a series of simple retrievals”;

Courtney [0039] “Another application that utilizes the DOM ... use the same ... command format for most network devices even though each device”).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON MITCHELL whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/  
Examiner, Art Unit 2193